



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/556,642

11/15/2006

Sean J. Campbell

1324.044

8513

23405

7590

03/17/2009

HESLIN ROTHENBERG FARLEY & MESITI PC  
5 COLUMBIA CIRCLE  
ALBANY, NY 12203

EXAMINER

LI, JUN

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

03/17/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/556,642	<b>Applicant(s)</b> CAMPBELL, SEAN J.	
	<b>Examiner</b> JUN LI	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/10/2005</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-22, drawn to a screed composition.

Group II, claim(s) 23-24, drawn to a method for producing recited composition.

Group III, claim(s) 25, drawn to a method for producing a sand residue as a component for screed.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the special technical feature which is referred to Annex B of Appendix A1 of the MPEP (Administrative Instructions under the PCT, "Unity of Invention"). Unity exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding claimed special technical features. In this case, the technical feature shared by each invention is the screed. The question of unity of invention has been reconsidered retroactively by the examiner in view of the search performed; a review of **US2003/0041783 (Monawar et al.)**, makes clear that the inventions of group I-III lacks the same or

Art Unit: 1793

corresponding special technical feature because the cited reference(s) appear to demonstrate that the claimed technical feature does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Accordingly, the prior art of the record supports restriction of the claimed subject matter in to the groups as mentioned immediately above.

During a telephone conversation with Mr. Lee Flackenstein on 02/23/2009 a provisional election was made to prosecute the invention of group I, claims 1-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 23-25 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112.

Art Unit: 1793

Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b).

Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**1. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Monawar.**

Monawar teaches a pourable cementitious ([0036]) composition comprising a hydraulic binder such as Portland cement or gypsum ([0026]),

Art Unit: 1793

recovered waste glass with a water/cement ratio of 0.15 to 0.8:1 ([0030], claim 1). Furthermore, Monawar teaches gypsum used as hydraulic hardening cement, thus the calcium sulfate modifications hemihydrate ( $\alpha$  or  $\beta$ ) as well as anhydrite are considered to be implicitly included in here. Thus all the limitations in this instant claim are met by Monawar and the instant claim is anticipated by Monawar.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**2. Claim 1-7, 11, 14 and 17-18 is rejected under 35 U.S.C. 103(a) as obvious over Monawar in view of Ruediger (DE4342407).**

Reference of Monawar has been described above.

Art Unit: 1793

Regarding claim 1, assuming applicants arguing that Monawar fails to expressly teach calcium sulfate binder selected from at least one of alpha hemihydrate, plaster, beta hemihydrate plaster, anhydrite or their combinations. However, gypsum is calcium sulfate powder.

Ruediger teaches using different types of calcium sulfate such as anhydrite calcium sulfate powder as a binder composition for powder screed compound (machine translation claim 4-6).

It would have been obvious to adopt anhydrite calcium sulfate to improve the cementitious composition of Monawar. One of ordinary would have been appreciated to do so because Monawar needs a specific gypsum as a binder without describing a specific one while Ruediger providing a specific gypsum i.e. anhydrite calcium sulfate. Furthermore, adopting known technique to improve efficiency of similar composition is well within one of ordinary skill in the art.

Regarding claim 2-4, 11, 14 and 17-18, Monawar discloses a composition comprising 60 to 93 % binder and 5 to 38 % waste glass and binder composition being Portland cement, high alumina cement, gypsum as well as mixtures of these cements ([0026]). Monawar further teaches admixtures such as lignosulfonate plasticizers ([0027]), retarders and accelerators ([0028]) may be added.

Regarding claim 5-7, Ruediger further teaches a hydraulic binder for screed composition using high alumina cement, Portland cement 40-70% with 0.5-20% Portland cement (claim 1) whose weight ratio overlaps with the instant claims. Furthermore, MPEP states that “where the general conditions of a claim

Art Unit: 1793

are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation” (See MPEP §2144.05 [R-5] II). Ruediger also discloses calcium aluminum cement ( $2\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$  as well as  $12\text{CaO} \cdot \text{Al}_2\text{O}_3$ ) (machine translated detailed description page 1 10<sup>th</sup> paragraph) can be used as composition for a hydraulic binder. It would have been obvious to one of ordinary skill in the art using the teachings of Ruediger to improve the composition of Monawar for a desired cementitious cement.

**3. Claims 8-10 are rejected under 35 U.S.C. 103(a) as obvious over Monawar in view of Ruediger (DE4342407) applied to claim 1-7,11,14 , 17-18 above, and further in view of Niel (WO03/045870).**

The references of Monawar in view of Ruediger have been described above. Monawar further teaches limestone can used as mixture to solidify cementitious composition ([0032],[0033]).

Regarding claim 8-10, the references of Monawar in view of Ruediger fails to expressly teach using recited percentage limestone, fuel ash, silica fume as hydraulic binder in the composition.

Niel teaches pulverizing limestone, fly ash,  $\text{SiO}_2$  mixture for a composition with hydraulic binding properties wherein has 32-52%  $\text{CaO}$ , 23-45%  $\text{SiO}_2$  (claim 1, abstract, page 1 lines 11-14).

It would have been obvious to one of ordinary skill in the art the time of invention to use the hydraulic binder of Niel to practice the cementitious composition of Monawar in view of Ruediger. One of ordinary skill in the art



Art Unit: 1793

would have appreciated using the hydraulic binder of Niel because the hydraulic binder expands the choice of binders for cementitious compositions of Monawar in view of Ruediger for manufacturing a desired final cementitious product.

Furthermore, MPEP states that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation” (See MPEP §2144.05 [R-5] II).

**4. Claims 12-13, 15-16 and 19-22 are rejected under 35 U.S.C. 103(a) as obvious over Monawar in view of Ruediger (DE4342407) applied to claim 1-7,11,14 , 17-18 above, and further in view of Cowan (US5298070) .**

The references of Monawar in view of Ruediger have been described above.

Regarding claim 12-13 and 15-16, the references of Monawar in view of Ruediger fails to expressly teach using recited percentage of specific retarders and accelerators.

Cowan teaches additives such as citric acid, boric acid etc can be used as retarders while sodium, calcium salt can be used as accelerators in the cementitious composition (column 4 lines 60-68, and column 5 first 3 lines). It is to be noted that generally additive will add to the composition in a very small amount. Furthermore, MPEP states that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation” (See MPEP §2144.05 [R-5] II).

Art Unit: 1793

It would have been obvious to one of ordinary skill in the art the time of invention to use the retarders and accelerators of Cowan to practice the cementitious composition of Monawar in view of Ruediger. One of ordinary skill in the art would have appreciated using the retarders and accelerators of Cowan because Monawar in view of Ruediger needs retarders and accelerators without describing specific ones to manufacturing a desired final cementitious product.

Regarding claim 19-22, the references of Monawar in view of Ruediger fails to expressly teach the cementitious composition has a 0.02-2% plasticizer and 1-6% polymer.

Cowan teaches using surfactant (0.05-5% by volume) and polymer (0.1%-5%) to reduce fluid loss from the cement (abstract, column 2 lines 20-30).

It would have been obvious to one of ordinary skill in the art the time of invention to use the recited percentage of plasticizer and polymer of Cowan to practice the cementitious composition of Monawar in view of Ruediger. One of ordinary skill in the art would have been appreciated to do so because probable percentage of surfactant and polymer and help reducing fluid loss in the cement as shown by Cowan (abstract, column 2 lines 20-30).

Furthermore, MPEP states that “where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation” (See MPEP §2144.05 [R-5] II).

### ***Conclusion***

1. All the claims are rejected for the reasons of the record.

Art Unit: 1793

2. The additional references on the 892 have been cited as art of interest since they are cumulative to or less than the art relied upon in the rejections above.
3. The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUN LI whose telephone number is (571)270-5858. The examiner can normally be reached on Monday-Friday, 8:00am EST-5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on 571-272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JUN LI/  
Examiner, Art Unit 1793

/JL/  
03/04/2009

/Melvin Curtis Mayes/  
Supervisory Patent Examiner, Art Unit 1793